UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/040,654	01/07/2002	Victor N. Vu	42390P12319	2691

7590 02/01/2005	EXAMINER	
BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP	COURTENAY III, ST JOHN	

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ART UNIT	PAPER NUMBER
2126	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

-- The MAILING DATE of this c mmunication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>07 January 2002</u>.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-30</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-18,22,23,27 and 30</u> is/are rejected.

7)☐ Claim(s) <u>19-21,24-26,28 and 29</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>07 January 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

ST. JOHN COURTENAY III
PRIMARY EXAMINER

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The language of independent claims 1, 10, and 14 raises a question as to whether the claim is directed merely to an abstract idea that is not tied to a technological art, environment or <u>machine</u> which would result in a practical application producing a useful, concrete, and tangible result to form the basis of statutory subject matter under 35 U.S.C. 101.

Independent claims 1, 10, and 14 do not appear to require any computer hardware to implement the claimed invention. These claims appear to define the metes and bounds of an invention comprised of software alone. There is no support (i.e., explicitly claimed computer hardware) in the body of claim 10 to support the "apparatus" of the preamble. Likewise, the "system" of the preamble of claim 14 appears to be a system comprised entirely of software. Software alone, without a machine, is incapable of transforming any physical subject matter by chemical, electrical, or mechanical acts.

If the "acts" of a claimed process manipulate only numbers, abstract concepts or ideas, or signals representing any of the foregoing, the acts are not being applied to appropriate subject matter. <u>In re Schrader</u>, 22 F.3d 290 at 294-95, 30 USPQ2d 1455 at 1458-59 (Fed. Cir. 1994).

Transformation of data by <u>a machine</u> constitutes statutory subject matter if the claimed invention as a whole accomplishes a practical application. That is, it must produce a "useful, concrete

and tangible result." <u>State Street</u>, 149 F.3d 1368, 1373, 47 USPQ2d 1596 at 1600-02 (Fed. Cir. 1998). MPEP 2106.

<u>State Street</u> required transformation of data by a machine before it applied the "useful, concrete, and tangible test." However, <u>State Street</u> does not hold that a "useful, concrete and tangible result" alone, without a machine, is sufficient for statutory subject matter. <u>State Street</u>, 149 F.3d at 1373, 47 USPQ2d at 1601.

Claims 1-17 are rejected under 35 U.S.C. 101 because the claimed invention, appearing to be comprised of <u>software alone</u> without claiming associated <u>computer hardware</u> required for execution, is not supported by either a specific and substantial asserted utility (i.e., transformation of data) or a well established utility (i.e., a practical application).

35 U.S.C. § 112, 1st paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-17 are also rejected under 35 U.S.C. 112, first paragraph. Specifically, since the claimed invention is not supported by either a specific and substantial asserted utility or a well established utility for the reasons set forth above, one skilled in the art clearly would not know how to use the claimed invention.

35 U.S.C. § 112, 2nd paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-17 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential elements, such omission amounting to a gap between the elements. See MPEP § 2172.01. The omitted elements are computer hardware necessary to execute the claimed software and render the invention operative.

35 U.S.C. § 102
The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1, 6 – 10, 13 – 15, 17, 18, 22, 23, 27, 30 are rejected under 35 U.S.C. § 102(e) as being anticipated by **Gunduc et al.** (U.S. Patent Application Publication, US2003/0110312).

For purposes of claim interpretation, the claimed "integration interface" and "interface clearinghouse" have been considered in light of the supporting definitions found in the specification on pages 7 and 14, respectively.

As per independent claim 1:
Gunduc teaches a method comprising:

- receiving an indication to dynamically integrate a component into an executing application [see use of DLL as a component server, §0109; see also component definition, §0061];

- loading the component [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion]; and

- linking the component to the application [see DLL, §0109] by:

    o obtaining the component's integration interface, the integration interface comprising methods for managing the component [see Interface, §0041]; and

    o invoking an initialize method of the integration interface [e.g., see "Plugin Registration" and associated registration (i.e., initialization) methods, §§0105 - 0107].

As per independent claim 10:
This claim is rejected for the same reasons detailed above in the rejection of independent claim 1, and also for the following additional reasons:

Gunduc teaches an apparatus comprising:

- a component loader to load requested components of a plurality of components into an application, the plurality of components corresponding to an application, and each implementing an integration interface [see Interface, §0041] having a number of methods for managing loaded components [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion];

- an interface clearinghouse to store and manage interfaces corresponding to the loaded components [e.g., see "Interface Lifetime Control" and associated discussion §0133]; and

- a messaging mechanism for external entities to communicate with the loaded components [see role of Interceptors, e.g., "Given that client invokes method X of plugin A, method Xs of the intercepting plugins are invoked in the order specified by the InterceptionSeq attribute of plugin A as follows" §0195, where messaging is interpreted as invoking a method of an object].

As per independent claim 14:
This claim is rejected for the same reasons detailed above in the rejection of the preceding independent claims, and also for the following additional reasons:

Gunduc teaches a system comprising:

- an integration interface having a plurality of methods for managing a component [see Interface, §0041];

- at least one component that implements the integration interface [see component definition, §0061];

- a components repository for storing the at least one component [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion];

- a component framework [see plugin framework discussion §0016] corresponding to an application to manage the at least one component using the integration interface, the component framework having:

  o a component loader to load requested components from the components repository into an application [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion];

  o an interface clearinghouse to store and manage interfaces corresponding to the loaded components [e.g., see "Interface Lifetime Control" and associated discussion §0133]; and

  o a messaging mechanism for external entities to communicate with the loaded components [see role of Interceptors, e.g., "Given that client invokes method X of plugin A, method Xs of the intercepting plugins are invoked in the order specified by the InterceptionSeq attribute of plugin A as follows" §0195, where messaging is interpreted as invoking a method of an

object].

As per independent claim 18:
This claim is rejected for the same reasons detailed above in the rejection of the preceding independent claims, and also for the following additional reasons:

Gunduc teaches a machine-readable medium having stored thereon data representing sequences of instructions, the sequences of instructions which, when executed by a processor, cause the processor to:

- receive an indication to dynamically integrate a component into an executing application [see use of DLL as a component server, §0109; see also component definition, §0061];

- load the component [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion; see also component discussion §0021]; and

- link the component to the application [see DLL, §0109] by:

  o obtaining the component's integration interface, the integration interface comprising methods for managing the component [see Interface, §0041; see also component discussion §0021]; and

  o invoking an initialize method of the integration interface [e.g., see "Plugin Registration" and associated registration (i.e., initialization) methods, §§0105 -

0107].

As per independent claim 23:
This claim is rejected for the same reasons detailed above in the rejection of the preceding independent claims, and also for the following additional reasons:

Gunduc teaches an apparatus comprising:
- at least one processor [inherent in the computer system taught by Gunduc, §0004]; and

- a machine-readable medium having instructions encoded thereon [inherent in the computer system taught by Gunduc, §0004], which when executed by the processor, are capable of directing the processor to:

  o receive an indication to dynamically integrate a component into an executing application [see use of DLL as a component server, §0109; see also component definition, §0061];

  o load the component [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion; see also component discussion §0021]; and

  o link the component to the application [see DLL, §0109] by:
    ▪ obtaining the component's integration interface, the integration interface comprising methods for managing the component [see Interface, §0041; see also component discussion §0021]; and

- invoking an initialize method of the integration interface [e.g., see "Plugin Registration" and associated registration (i.e., initialization) methods, §§0105 - 0107].

As per independent claim 27:
This claim is rejected for the same reasons detailed above in the rejection of the preceding independent claims, and also for the following additional reasons:

Gunduc teaches an apparatus comprising:

- means for loading requested components of a plurality of components into an application, the plurality of components corresponding to an application, and each implementing an integration interface [see Interface, §0041] having a number of methods for managing loaded components [see PIF ("Plugin Framework"), §§ 0048, 0110, i.e., "The PIF provides the following functions or services for loading and unloading the DLL to and from the caller's address space"; see also §0131 PIF loading discussion];

- means for storing and managing interfaces [see Interface, §0041] corresponding to the loaded components; and

- means for external entities to communicate with the loaded components [see role of Interceptors, e.g., "Given that client invokes method X of plugin A, method Xs of the intercepting plugins are invoked in the order specified by the 'InterceptionSeq' attribute of plugin A as follows" §0195, where messaging is interpreted as invoking a method of an object].

As per dependent claims 6, 13, 17, 22, 30:
Gunduc teaches the application is in a network, and the loading the component comprises retrieving the component from a member in the network [e.g., see "DLL" and "component" discussion §0021; see "The library may be another process on the same (i.e., local), node or on a remote node" §0022, last line].

As per dependent claims 7 & 8:
Gunduc teaches the member comprises a peer and the peer comprises another component loader in the network [e.g., see " DLL" and "component" discussion §0021].

As per dependent claim 9:
Gunduc teaches the member comprises a host in the network [e.g., see "The library may be another process on the same (i.e., local), node or on a remote node" §0022, last line]

As per dependent claim 15:
Gunduc inherently teaches the use of a communication bus for inter-components communication, as a bus is an integral part of every computer system [e.g., see client/server component discussion 0021].

Indication of Allowable Subject Matter:
Dependent claims 2, 3, 5, 11, 16, 19, 20, 24, 25, 28 & 29 appear
to be allowable over the prior art of record if rewritten to include
all of the limitations of the base claim and any intervening claims,
<u>subject to the results of a final search</u>, and <u>subject to the 101 and
112 rejections detailed above</u>. Claims 19-21, 24-26, 28 & 29
stand objected to as being dependent upon a rejected base claim.

As per dependent claims 2, 19, 24, 29:
The prior art of record does not teach, nor fairly suggest
invoking a replace method of the integration interface, the
replace method to transition an existing state of the existing
component into the new component, or equivalent means for
accomplishing same (re: claim 29), as claimed.

As per dependent claims 3, 16, 20, 25:
The prior art of record does not teach, nor fairly suggest
invoking a publish method of the <u>integration interface</u> and
specifying one or more interfaces to publish to other components
and storing the one or more interfaces in an <u>interface
clearinghouse</u>, as claimed.

As per dependent claim 5:
The prior art of record does not teach, nor fairly suggest
invoking a <u>stop method</u> of the <u>integration interface</u> when the
component is ready to be shut down.

As per dependent claims 11, 28:
The prior art of record does not teach, nor fairly suggest
an integration interface comprising <u>an initialize method</u> to
transition a given component into a state to operate and <u>a stop
method</u> to transition the given component into a destroy state, or

equivalent means for accomplishing same (re: claim 28), operatively coupled as claimed.

As per dependent claim 16:
The prior art of record does not teach, nor fairly suggest where the communication bus is established after at least one call to a publish method and a retrieve method of the integration interface, operatively coupled as claimed.

Prior Art not relied upon:
Please refer to the references listed on the attached PTO-892 which are not relied upon in the claim rejections detailed above.

How to Contact the Examiner:

Any inquiry concerning this communication or earlier communications from the examiner should be directed to St. John Courtenay III, whose telephone number is 571-272-3761. A voice mail service is also available at this number. The Examiner can normally be reached on Monday - Friday, 8:00 AM - 4:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, An Meng-AI who can be reached on 571-272-3756. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

All responses sent by U.S. Mail should be mailed to:

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Effective Oct. 15, 2003, ALL patent application correspondence transmitted by FAX must be directed to the new PTO central FAX number:

NEW PTO CENTRAL FAX NUMBER:

703-872-9306

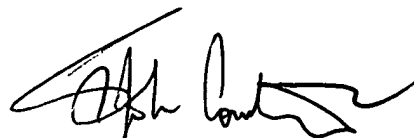
- Any inquiry of a general nature or relating to the status of this application should be directed to the **TC 2100 Group receptionist: (703) 305-3900.**

Please direct inquiries regarding fees, paper matching, and other issues not involving the Examiner to:
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The Manual of Patent Examining Procedure (MPEP) is available online at: **http://www.uspto.gov/web/offices/pac/mpep/index.html**

ST. JOHN COURTENAY III
PRIMARY EXAMINER